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Substitute for form 1449/PTO)	Complete	if Known
INFORMATION DISCLOSURE				Application Number	10/706,484
				Filing Date	12 November 2003
STATEMENT BY APPLICANT (PART I) (Use as many sheets as necessary)			APPLICANT	First Named Inventor	Graydon Ernest Beatty
				Art Unit	3739
			ets as necessary)	Examiner Name	Lee S. Cohen
Sheet	T	of	5	Attorney Docket Number	0G-040023US

			U.S. PATENT DO	CUMENTS	
Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
initials 140.		Number-Kind Code ^{2 (If Known)}			or Relevant Figures Appear
	USI	3,954,098	05-04-1976	Dick et al.	
	US2	4,173,228	11-06-1979	Van Steenwyk, et al.	
	US3	4,304,239	12-08-1981	Perlin	
	US4	4,380,237	04-19-1983	Newbower	
	US5	4,431,005	02-14-1984	McCormick	
	US6	4,444,195	04-24-1984	Gold	
	US7	4,478,223	10-23-1984	Allor	
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Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where	
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Substitute for form 1449/PTO				Complete	if Known
T I T O		~~~	DYCCY OCUME	Application Number	10/706,484
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (PART I) (Use as many sheets as necessary)				Filing Date	12 November 2003
			APPLICANT	First Named Inventor	Graydon Ernest Beatty
			•	Art Unit	3739
			ets as necessary)	Examiner Name	Lee S. Cohen
Sheet	2	of	5	Attorney Docket Number	0G-040023US

	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages
	No.	Number-Kind Code ^{2 (If Known)}	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear
	US22	4,890,623	01-02-1990	Cook et al.	
	US23	4,898,176	02-06-1990	Petre	
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	US27	4,945,305	07-31-1990	·Blood	
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	US29	4,951,682	08-28-1990	Petre	
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	FP10					<u> </u>
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	0.4	T	U.S. PATENT Do Publication Date	Name of Patentce or	Pages, Columns, Lines,
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	US43	5,220,924	06-22-1993	Frazin	
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STAT	STATEMENT BY APPLICANT (PART I) (Use as many sheets as necessary)			First Named Inventor	Graydon Ernest Beatty
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•				Examiner Name	Lee S. Cohen
Sheet	4	of	5	Attorney Docket Number	0G-040023US

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines,	
Initials* No.1	Number-Kind Code ^{2 (If Known)}	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear		
.,	US62	5,433,198	07-18-1995	Desai		
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	US71	5,669,382	09-23-1997	Curwen et al.		
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			FOREIGN PATENT DO	CUMENTS		
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Sheet	5	of	5	Attorney Docket Number	0G-040023US

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Initials No.1	Number-Kind Code ² (If Known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	
	US82	5,848,972	12-15-1998	Triedman et al.	or Korovano i garas i spec
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Sheet	1	of	3	Attorney Docket Number	0G-040023US		

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LE the item (book, magazine, journal, serial, sy number(s), publisher, cit	ymposium, catalog, o	etc.), date, page(s), volume issue	T ²
	NPL1	ARISI, G., et al., "Localization Of Ed Diameter Multielectrode Catheter," A Science Publishers B.V. (Biomedical 67-70 (1990).	dvances in Elect	rocardiology, Elsevier	
	NPL2	BRANHAM B., et al., "A System For Cardiac Electrical Activity," Computer Press 0276-6547/92, pp. 335-338 (Oct.)	ers in Cardiology	nctive 3-D Display Of  v, IEEE Computer Society	
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	NPL7	CIKES, I., "Interventional Echocardic Echocardiology, Rotterdam, Abstract		mposium on	
	NPL8	CIKES, I., et al., "Interventional Echocardiography," Interventional Ultrasound, 1st edition, chapter 25, Munksgaard, Copenhagen, pp. 160-168 (1985).			
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·	NPL10				
Examiner Signature		-	Date Considered		

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		Non Patent Literature Documents	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T²
	NPL11	DERFUS, D. and PILKINGTON, T., "Assessing The Effect Of Uncertainty In Intracavitary Electrode Position On Endocardial Potential Estimates," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 39, No. 7, pp. 676-681 (July 1992).	
	NPL12	DERFUS, D., et al., "Calculating Intracavitary Potentials from Measured Endocardial Potentials," Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vol. 12, No. 2, p. 635 (1990).	
	NPL13	DERFUS, D., et al., "A Comparison of Measured and Calculated Intracavitary Potentials for Electrical Stimuli in the Exposed Dog Heart," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 39, No. 11, pp. 1192-1206 (Nov. 1992).	
	NPL14	DERFUS, D. and PILKINGTON, T., "Effect Of Intracavitary Electrode Position On Endocardial Potential Estimates," <i>IEEE Engineering in Medicine &amp; Biology Society 10th Annual International Conference</i> , pp. 185-186 (1988).	
	NPL15	DESAI, J., et al., "Orthogonal Electrode Catheter Array for Mapping of Endocardial Focal Site of Ventricular Activation," PACE, Vol. 14, Part I, pp. 557-574 (April 1991).	
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	NPL17	DURRER, D. and VAN DER TWEEL, L., "Spread of Activation in the Left Ventricular Wall of the Dog. II.: Activation Conditions at the Epicardial Surface," <i>American Heart Journal</i> , pp. 192-203 (Aug. 1953).	
,	NPL18	FANN, J., et al., "Endocardial Activation Mapping and Endocardial Pace-Mapping Using a Balloon Apparatus," Am. J. Cardiol., Vol. 55, pp. 1076-1083 (1985).	
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	NPL20	FENICI, R., et al., "Catheter Ablation Of Cardiac Arrhythmias: Magnetocardiographic Localization Of Electrocatheters And Arrhythmogenic Foci," 8th International Congress "The New Frontiers of Arrhythmias," Marilleva, Italy, pp. 723-731 (Jan. 31-Feb. 6, 1988).	
Examiner Signature		Date Considered  Considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance with MPEP 609.	

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Substitute for form 1449/PTO	Complete if Known		
TWO THE STORY DAGGE COLUMN	Application Number	10/706,484	
INFORMATION DISCLOSURE	Filing Date	November 12, 2003	
STATEMENT BY APPLICANT	First Named Inventor	Graydon Ernest Beatty	
(PART I)	Art Unit	3739	
(Use as many sheets as necessary)	Examiner Name	Lee S. Cohen	
Sheet 3 of 3	Attorney Docket Number	0G-040023US	

		NON PATENT LITERATURE DOCUMENTS	,
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL21	FENICI, R., et al., "Clinical Magnetocardiography: 10 Years Experience At The Catholic University," International Journal of Cardiac Imaging, Vol. 7, pp. 151-167 (1991).	
	NPL22	FENICI, R. and MELILLO, G., "Magnetocardiography: Ventricular Arrhythmias," <i>European Heart Journal</i> , vol. 14 (Suppl. E), pp. 53-60 (1993).	
	NPL23	HARADA, A., et al., "Potential Distribution Mapping: New Method For Precise Localization Of Intramural Septal Origin Of Ventricular Tachycardia," Circulation, Vol. 78 (Suppl. III), No. 5, pp. III-137-III-147 (Nov. 1988).	
	NPL24	HAUER, R., et al., "Endocardial Catheter Mapping: Validation Of A Cineradiographic Method For Accurate Localization Of Left Ventricular Sites," Circulation, Vol. 74, No. 4, pp. 862-868 (October 1986).	
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	NPL30	JOSEPHSON, M., Clinical Cardiac Electrophysiology: Techniques and Interpretations, 2nd ed., pp. 566-580, 608-615, and 770-783 (1993).	

Examiner	Date	
Signature	Considered	

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Substitute for form 1449/PTO				Con	Complete if Known		
				Application Number	10/706,484		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (PART II) (Use as many sheets as necessary)				Filing Date	12 November 2003		
			PLICANT	First Named Inventor	Graydon Ernest Beatty		
				Art Unit	3739		
			s necessary)	Examiner Name	Lee S. Cohen		
Sheet	1	of	5	Attorney Docket Number	0G-040023US		

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL31	JOSEPHSON, M., et al., "Comparison Of Endocardial Catheter Mapping With Intraoperative Mapping Of Ventricular Tachycardia," Circulation, Vol. 61, No. 2, pp. 395-404 (February 1980).	
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	NPL37	KHOURY, D. and RUDY, Y., "Reconstruction Of Endocardial Potentials From Intracavitary Probe Potentials: A Model Study," IEEE 0276-6547/92, pp. 9-12 (1992).	
	NPL38	KUN, S. and PEURA, R., "Conductance Volumetric Model Of An Eccentrically Positioned Catheter Within A Three-Compartment Ellipsoidal Ventricle," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 40, No. 6, pp. 589-592 (June 1993).	
	NPL39	LANGBERG, J., et al., "The Echo-Transponder Electrode Catheter: A New Method For Mapping The Left Ventricle," Journal of the American College of Cardiology, Vol. 12, pp. 218-223 (July 1988).	
	NPL40	LAXER, C., et al., "A Graphical Display System For Animating Mapped Cardiac Potentials," Third Annual IEEE Symposium on Computer-Based Medical Systems, IEEE Computer Society, pp. 197-204 (1990).	
Examiner Signature		Date Considered	

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Substitute for form 1449/PTO				Complete if Known		
THE PART OF PART OF THE				Application Number	10/706,484	
INFORMATION DISCLOSURE				Filing Date	12 November 2003	
STATEMENT BY APPLICANT		First Named Inventor	Graydon Ernest Beatty			
(PART II)				Art Unit	3739	
(Use as many sheets as necessary)		Examiner Name	Lee S. Cohen			
Sheet	2	of	5	Attorney Docket Number	0G-040023US	

		Non Patent Literature Documents	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL41	LU, S. and EIHO, S., "Compound 3-D Visualization Of Reconstructed Coronary Arteries, Left Ventricle And Aorta From Biplane X-Ray Angiograms," <i>Computers in Cardiology</i> , IEEE Computer Society Press, 0276-6547/92, pp. 535-538 (Oct. 11-14, 1992).	
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	NPL43	MACCHI, E., et al., "Localization Of Ventricular Ectopic Beats From Intracavitary Potential Distributions: An Inverse Model In Terms Of Sources," IEEE Engineering in Medicine & Biology Society 11th Annual International Conference, pp. 0191-0192 (1989).	
	NPL44	MASSE, S., et al., "A Three-Dimensional Display For Cardiac Activation Mapping," <i>PACE</i> , Vol. 14, Part I, pp. 538-545 (April 1991).	
	NPL45	MOSHAGE, W., et al., "Biomagnetic Localization Of Ventricular Arrhythmias," Radiology, Vol. 180, No. 3, pp. 685-692 (September 1991).	
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	NPL49	POGWIZD, S. and CORR, P., "Reentrant And Nonreentrant Mechanisms Contribute To Arrhythmogenesis During Early Myocardial Ischemia: Results Using Three-Dimensional Mapping," <i>Circulation Research</i> , Vol. 61, No. 3, pp. 352-371 (September 1987).	

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				Application Number	10/706,484
INFORMATION DISCLOSURE				Filing Date	12 November 2003
STATEMENT BY APPLICANT (PART II) (Use as many sheets as necessary)		First Named Inventor	Graydon Ernest Beatty		
		Art Unit	3739		
		Examiner Name	Lee S. Cohen		
Sheet	13	of	5	Attorney Docket Number	0G-040023US

		NON PATENT LITERATURE DOCUMENTS	.—
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	NPL50	POLLAK, S., et al., "Intraoperative Identification Of A Radiofrequency Lesion Allowing Validation Of Catheter Mapping Of Ventricular Tachycardia With A Computerized Balloon Mapping System," <i>PACE</i> , Vol. 15, pp. 854-858 (June 1992).	
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·	NPL53	RUDY, Y. and PLONSEY, R., "The Eccentric Spheres Model As The Basis For A Study Of The Rule Of Geometry And Inhomogeneities In Electrocardiography," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. BME-26, No. 7, pp. 392-399 (July 1979).	
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	NPL55	RUDY, Y. et al., "Inverse Reconstruction Of Epicardial And Endocardial Potentials: The Use Of Temporal Information," IEEE, pp. 2006-2008 (1992).	
	NPL56	SIMPSON, E., et al., "Three-Dimensional Visualization Of Electrical Variables In The Ventricular Wall Of The Heart," IEEE, TH0311-1/90, pp. 190-194, (1990).	
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	NPL58	SMITH, W. and IDEKER, R., "Computer Techniques For Epicardial And Endocardial Mapping," <i>Progress in Cardiovascular Diseases</i> , Vol. 26, No. 1, pp. 15-32 (July/August 1983).	

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		~~		Application Number	10/706,484	
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			PLICANT	First Named Inventor	Graydon Ernest Beatty	
				Art Unit	3739	
			necessary)	Examiner Name	Lee S. Cohen	
Sheet	4	of	5	Attorney Docket Number	0G-040023US	

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	NPL59	SPACH, M. and BARR R., "Analysis Of Ventricular Activation And Repolarization From Intramural And Epicardial Potential Distributions For Ectopic Beats In The Intact Dog," <i>Circulation Research</i> , Vol. 37, pp. 830-843 (December 1975).	
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	NPL61	TACCARDI, B., et al., "A New Intracavitary Probe For Detecting The Site Of Origin Of Ectopic Ventricular Beats During One Cardiac Cycle," <i>Circulation</i> , Vol. 75, No. 1, pp. 272-281 (Jan. 1987).	
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	NPL67	YUAN, S., et al., "Localization Of Cardiac Arrhythmias: Conventional Noninvasive Methods," <i>International Journal of Cardiac Imaging</i> , Vol. 7, pp. 193-205 (1991).	

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TOTAL MICH DIGGI OCUDE				Application Number	10/706,484	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	12 November 2003	
			PLICANT	First Named Inventor	Graydon Ernest Beatty	
(PART II)				Art Unit	3739	
(Use as many sheets as necessary)			s necessary)	Examiner Name	Lee S. Cohen	
Sheet	1.5	of	5	Attorney Docket Number	0G-040023US	

		NON PATENT LITERATURE DOCUMENTS	1
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	NPĹ71	"Quickhull Algorithm For Convex Hulls," ACM Transactions on Mathematical Software, Vol. 22, No. 4, Dec. 1996, 1 page.	
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